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STATEMENT OF
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RESOURCES, COMMUNITY, AND
ECONOMIC DEVELOPMENT DIVISION

BEFORE THE
SUBCOMMITTEE ON AVIATION
OF THE
HOUSE COMMITTEE ON PUBLIC WORKS
AND TRANSPORTATION

ON
CONDITIONS WITHIN THE AIR TRAFFIC CONTROL WORK FORCE
AT SIX FAA FACILITIES



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Mr. Chairman and Members of the Subcommittee:

We appreciate this opportunity to comment on conditions within the controller work force at the Federal Aviation Administration's (FAA's) six air traffic control (ATC) facilities serving northern New Jersey.¹

Air traffic in this area has now reached record levels and is expected to continue to grow. The first major labor-saving features of FAA's planned automated ATC system, however, will not be available until at least the early 1990s. This, coupled with questions about FAA's progress in rebuilding the controller work force after the strike over 4 years ago have caused growing concern in the Congress over the safety of our national airspace system.

Because of this concern, we spent the past year collecting and analyzing information on various aspects of the working environment in the 74 busiest ATC facilities in the continental United States,² including five of the six ATC facilities serving northern New Jersey. While the Teterboro terminal was not included in our survey, we have collected and analyzed staffing and air traffic activity data for this facility as well. As agreed, our testimony today will cover in detail the size and

¹The six facilities are the Teterboro and Newark, N.J., and the John F. Kennedy and LaGuardia, N.Y., airport traffic control terminals; the New York terminal radar approach control facility (New York TRACON); and the New York air route traffic control center (New York Center).

²Our survey included the 20 air route traffic control centers (hereafter referred to as centers) and the 54 busiest terminal facilities in the continental United States. Although there are 448 ATC facilities operated by FAA, 63 percent of the controllers are employed and 80 percent of radar operations are controlled at these 74 facilities.

composition of the controller work force as well as controller work load and overtime for these facilities. We will also present some background information on each of these topics.

There were two principal sources for the information we collected and analyzed. One source was data on staffing, overtime, and air traffic activity from FAA's payroll, personnel, and other systems for the period from July 1981 through September 1985. The other source was an extensive questionnaire survey of some 4,500 radar qualified controllers, 1,000 first-line supervisors, and the managers of the 74 ATC facilities. Overall, 75 percent of those we surveyed responded and we have used the questionnaire results to underscore conditions apparent in FAA's data. Various appendices are also attached to our statement to illustrate the information we obtained from FAA's data systems.

MAJOR FINDINGS

Our work at the six facilities of interest has shown that:

- FAA does not have as many fully qualified, experienced controllers at some of these facilities as managers, supervisors, and controllers believe are needed and as are called for by FAA's goals, and this problem cannot be resolved in the short term. In addition FAA could lose more supervisors and controllers through retirement than it expects.
- Air traffic activity is at the point where controllers and their supervisors believe they are overworked during peak traffic periods.

--Controllers report working at a radar position during peak periods without a break or change of position for more time than they believe they should have to and than is called for by FAA's policy.

--Overtime is likely to remain high at the New York Center and TRACON and controllers and supervisors feel the overtime being worked is negatively affecting controllers' ability to perform their duties.

In their responses to our questionnaire, supervisors confirmed that each of these conditions negatively impacts the maintenance of ATC system safety.

Before continuing, I want to point out that most of the controllers, supervisors, and managers who responded to our questionnaires rated the overall safety of the ATC system as adequate to excellent. But supervisors and controllers also identified concerns about their ability to maintain a safe system.

I will now present the specifics on each of our findings.

SIZE AND COMPOSITION OF THE CONTROLLER WORK FORCE

Today the ATC system is being operated with fewer controllers overall, and far fewer full performance level (FPL)³ controllers than before the August 1981 strike.

At the time of the 1981 strike, FAA believed that the 16,200 controllers it had were more than it needed. Since then, FAA has

³A full performance level controller is one who is fully certified to operate all positions in a defined area.

set out to rebuild the work force with several thousand fewer controllers. For fiscal years 1984 and 1985, FAA said its goal for controllers was about 12,500 as part of a total work force goal of about 14,300.

As of September 30, 1985, FAA had about 12,500 controllers. The smaller work force, however, has impacted staffing at certain facilities much more than others. For example, FAA has rebuilt the controller work force at the four airport terminals serving northern New Jersey to about their pre-strike level; yet, there are 48 percent fewer controllers at the New York Center and 38 percent fewer controllers at the New York TRACON than before the strike.

The composition of the controller work force is also far different than it was before the strike. As of July 31, 1981, FAA had 13,200 FPLs who made up over 80 percent of the work force. Only about 3,400 FPLs remained after the strike and as of September 30, 1985, there were about 8,300 FPLs comprising about 66 percent of a much smaller work force. In addition, FAA had about 4,200 developmental controllers⁴ and 1,500 air traffic assistants,⁵ a new position established since the strike.

At the six FAA facilities serving northern New Jersey there were 562 FPLs before the strike and as of September 30, 1985, there were 314 or 44 percent fewer. The change in the number of

⁴A developmental controller is one who is undergoing training.

⁵Air traffic assistants are not trained to and do not control air traffic. They perform less skilled tasks of mainly a clerical nature.

FPLs ranged from a 14 percent increase (2 FPLs) at the Teterboro airport terminal, a less complex nonradar facility, to a 54 percent decrease (186 FPLs) at the New York Center.

FAA's FPL staffing goal

FAA has established an FPL staffing goal of 75 percent⁶ at all ATC facilities. FAA had achieved its FPL staffing goal at the New York TRACON (78 percent) and the Teterboro terminal (100 percent), and was approaching its goal at the Kennedy terminal (72 percent), as of September 30, 1985. However, only about 60 percent of the controllers were FPLs at the New York Center (59 percent) and the Newark (61 percent) and LaGuardia (62 percent) terminals. Moreover, one must remember that the percent of FPLs at the New York Center and New York TRACON are based on a much smaller work force than before the strike.

Perspectives of controllers, supervisors, and managers on staffing adequacy

We asked controllers, supervisors, and facility managers at the five ATC facilities serving northern New Jersey that were included in our survey their opinions on staffing. Ninety-four (94) percent of the controllers and 91 percent of the supervisors said they believe there are fewer FPLs than are needed. Three of the five facility managers agreed and also said that their authorized controller staffing levels are not adequate.

⁶DOT informed the Office of Personnel Management, in a May 1985 request for a continuance of a waiver of time-in-grade requirements for controller promotions, that it was essential to have at least 75 percent of the controllers at a facility as FPLs. We, therefore, have used that as FAA's goal for FPL controller staffing.

We also asked the supervisors and managers their opinion about how much positive or negative impact several factors, including the number of FPLs available, were having on maintaining safety. Sixty-five (65) percent of the supervisors said the lack of FPLs was having a negative impact, and one of the five facility managers who answered the same question had the same opinion.

Obstacles to rebuilding
the controller work force

FAA faces difficult obstacles in building towards its FPL staffing goal. First, it takes time for a controller to acquire the training and experience to qualify as an FPL. Second, training attrition has averaged about 50 percent. And third, many of the experienced FPLs and supervisors have retired or are approaching retirement. These add up to a long term controller staffing problem.

Before the strike, it took an average of 4 to 5 years to qualify as an FPL. Since the strike, the Office of Personnel Management has waived time-in-grade requirements so that controllers can become FPLs in about half that time. Even so, in the 4 years since the strike, FAA has replaced only 57 of the 243 FPLs it lost from the New York Center and 68 of the 105 FPLs it lost at the New York TRACON.

Regarding training attrition (failures and withdrawals), only 58 percent of those hired since the strike have been able to pass the FAA Academy training requirements. And on the basis of facility managers' estimates, the facility attrition rate for those who graduate from the Academy has averaged 59 percent at the New York Center and 17 percent at the New York TRACON. The attrition rate at the terminals included in our survey has been minimal according to the facility managers.

Finally, our survey suggests many more controllers will retire in the next few years than FAA is planning for. FAA projects the number of retirements on the basis of its historical experience of 14 percent of those eligible to retire. Our survey, however, indicated that 78 percent of the 26 controllers and 83 percent of the 44 supervisors at the five facilities who are eligible to retire then or within 2 years would retire when eligible.

Certain facilities serving northern New Jersey could be especially hard hit by retirements. For example, 26 of the 44 supervisors at the New York Center are already eligible to retire, and our survey indicated that 21 of them definitely or probably will retire within the next 2 years. If replacements for the retired supervisors have to come from the ranks of the Center's FPL controllers, then the controller staffing situation at the Center will worsen.

FAA is trying to improve FPL staffing through a special program to encourage transfers into the New York Center and six other centers where the lack of FPLs is acute. FAA received about 500 offers nationwide to participate in the program as of its cutoff date in December 1985. However, only 30 expressed an interest in transferring to the New York Center.

CONTROLLER WORK LOAD

Controller work load is affected by the number and type of aircraft they are handling at any one time, the complexity of what they have to do, and the amount of time they spend at a control position during their shift. Immediately following the strike, FAA imposed special restrictions that reduced air traffic activity by about 20 percent because of the severe shortage of controllers. As FAA hired and trained more controllers, it lifted the last of the restrictions in December 1983, with the exception of flow control⁷ which has been used in some form since 1970.

Air traffic has grown substantially in the northern New Jersey area on the basis of a comparison of activity during the first 6 months in 1981 to the same 6 months in 1985. At the six facilities of interest, traffic increased by over 18 percent, including a 54 percent increase at the Newark terminal. Since the first major labor-saving features of FAA's planned automated air traffic control system will not be available until at least the early 1990s, controller work load at these facilities will likely continue to be a concern for some time.

⁷This is FAA's centrally managed national program designed to control aircraft departures and enroute flows based on weather conditions and capacity at arrival airports.

Our survey showed that 77 percent of the controllers at the five facilities who work radar believe they are required to handle more traffic during daily peak periods than they should be handling. Their supervisors said that 181 of the 473 controllers under their supervision are required to handle too much traffic. The five facility managers, on the other hand, disagreed with both the controllers and supervisors stating that only 4 (or 1 percent) of the radar controllers are required to handle more traffic than the managers feel is appropriate.

Over 90 percent of the controllers at the five facilities who believe that their work load is too high selected inadequate flow control procedures and airline schedules as the top two reasons. Over 90 percent of the supervisors who said controllers under their supervision are required to handle too much traffic also selected these reasons.

Over 70 percent of the controllers selected the shortage of radar controllers and the configuration of air traffic sectors⁸ as reasons why their work load is too high, and 63 percent of their supervisors agreed. Moreover, 43 percent of the supervisors were dissatisfied with the amount of say they had configuring their sectors.

Another significant work load issue is the amount of time a controller must spend on position. FAA's policy is that controllers should not work more than 2 hours at a radar position

⁸A sector is a designated section of airspace within which a controller has responsibility and authority for the separation of aircraft.

without a break or change of position. Sixty-nine (69) percent of the controllers at the five facilities reported working continuously for 2 hours or more at a radar position during peak periods. About two-thirds said they are working too long without a break during peak periods, and more than 55 percent of their supervisors agreed.

On average, those supervisors themselves spend almost 40 percent of their time working traffic, and over 60 percent of them believe this hinders their ability to carry out their supervisory responsibilities.

With regard to our question about the impact certain factors have on maintaining ATC system safety, over 80 percent of the supervisors believed that the amount of traffic work load is having a negative impact. We also asked controllers about two additional air traffic control services⁹ which can have a bearing on safety and which they provide pilots when they have time--responding to pilots' requests for traffic advisories and weather advisories. Even though a third of the controllers said they seldom, if ever, decline requests for traffic advisories, another third said they often do. Over 40 percent said they seldom, if ever, decline weather advisory requests, but one in four said they often do.

⁹Air traffic control additional services include various advisories that are provided to the extent possible contingent only upon the controllers capacity to fit them into the performance of higher priority duties and on the basis of the limitations of the radar, volume of traffic, radio frequency congestion, and controller work load. The controller has complete discretion in regards to providing these services.

THE USE OF OVERTIME TO
OPERATE THE ATC SYSTEM

FAA is heavily dependent on overtime to operate the ATC system, particularly at centers. Controllers at the New York Center worked over 60,000 hours and 54,000 hours of overtime during fiscal years 1984 and 1985, respectively, placing it in the top three centers for overtime hours worked both years. Similarly, controllers at the New York TRACON worked over 12,000 hours of overtime in each of the 2 fiscal years, ranking it second for overtime hours worked among the 54 busiest terminal facilities in the United States. Most of the overtime at the two New York facilities is built into the work schedule, and between 58 percent and 72 percent of the supervisors and controllers said they are expected or required to work overtime.

Effects on controllers

Fifty-two (52) percent of the controllers and 54 percent of the supervisors at the New York Center said they are working more overtime than they wanted. At the New York TRACON, 31 percent of the controllers said they are working more overtime than they wanted, and 28 percent of the supervisors agreed.

Of the controllers who said they are working more overtime than they wanted, the overwhelming majority also said overtime was having a negative impact on their overall ability to perform their duties. With regard to our question about maintaining system safety, 68 percent of the Center supervisors and 28 percent of the TRACON supervisors believed that the amount of overtime is having a negative impact.

CONCLUSIONS

Let me conclude by recapping the most essential points in my testimony.

At a time when air traffic activity increased by over 18 percent, the total number of controllers serving northern New Jersey was reduced by over 40 percent and the number of FPL's by 44 percent, without the benefit of planned labor-saving automation. We believe that the impacts of this situation are clearly reflected in the survey responses of controllers and supervisors about the staffing levels, work load, and overtime requirements at their facilities.

On the basis of the expressed concerns about the ability to maintain a safe system, many controllers serving northern New Jersey are being stretched too thin and their ability to continue to maintain the proper margin of safety in the face of expected continued growth in air traffic activity is in doubt. Meanwhile, FAA faces some difficult obstacles to rebuilding the controller work force and FAA's ongoing efforts will have little positive short-term impact on staffing or work load. Within the next several weeks, we plan to propose recommendations to FAA to improve the ATC system. These proposed recommendations and the

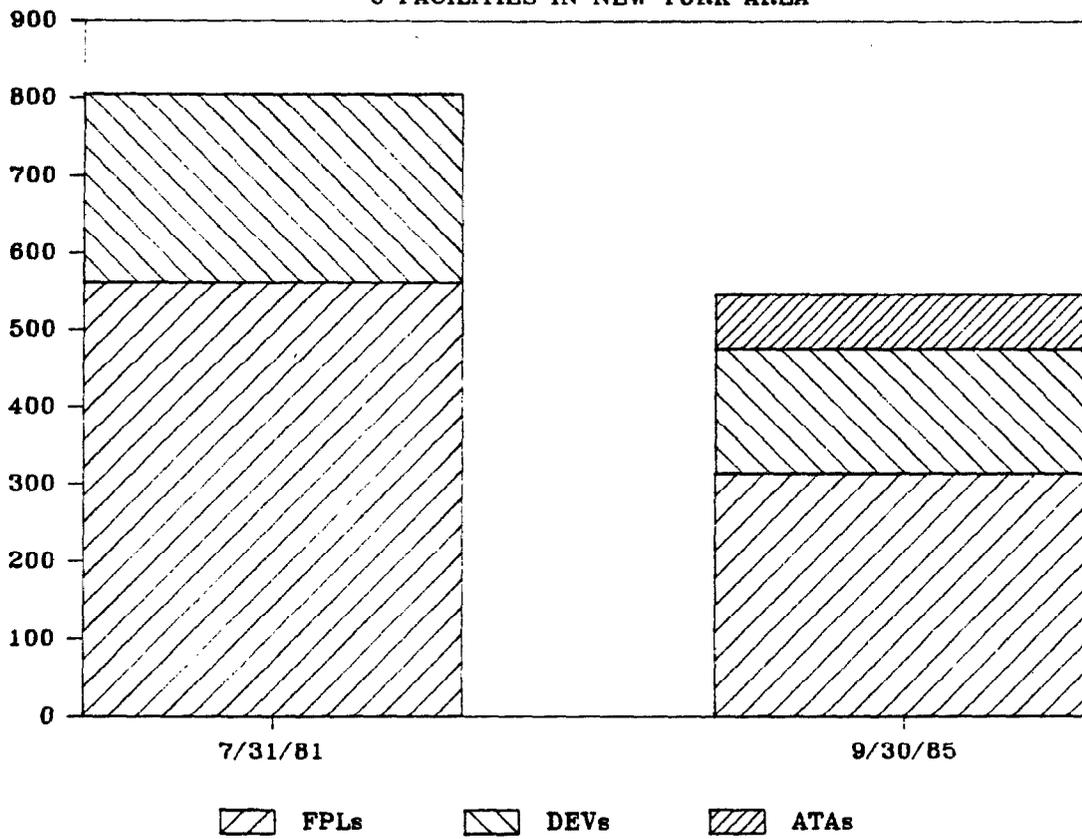
Department of Transportation's response to them will be included in a report to the Chairman of the House Appropriations Subcommittee on Transportation.

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This concludes my testimony Mr. Chairman. I will be pleased to answer any questions that you may have at this time.

AIR TRAFFIC CONTROL WORK FORCE

6 FACILITIES IN NEW YORK AREA



Air Traffic Control Work Force:

	<u>7/31/81</u>	<u>9/30/85</u>
Full Performance Level Controllers (FPLs)	562	314
Developmental Controllers (DEVs)	243	162
Air Traffic Assistants (ATAs)	<u>0</u>	<u>72</u>
	<u>805</u>	<u>548</u>

RATIO OF FULL PERFORMANCE LEVEL (FPL)
CONTROLLERS TO TOTAL CONTROLLERS AT 6 ATC FACILITIES
SERVING NORTHERN NEW JERSEY ON 7/31/81 AND 9/30/85

<u>FACILITIES</u>	<u>7/31/81</u>			<u>9/30/85</u>		
	<u>FPLs</u>	<u>Total Controllers</u>	<u>FPLs as a Percent of Total</u>	<u>FPLs</u>	<u>Total Controllers</u>	<u>FPLs as a Percent of Total</u>
Kennedy	29	33	88	18	25	72
LaGuardia	30	36	83	18	29	62
Newark	21	28	75	17	28	61
New York Center	344	514	67	158	267	59
New York TRACON	124	180	69	87	111	78
Teterboro	<u>14</u>	<u>14</u>	100	<u>16</u>	<u>16</u>	100
	562	805		314	476	
	<u> </u>	<u> </u>		<u> </u>	<u> </u>	

FULL PERFORMANCE LEVEL (FPL) CONTROLLERS AND SUPERVISORS
AT 6 ATC FACILITIES SERVING NORTHERN NEW JERSEY WHO WERE
ELIGIBLE TO RETIRE AS OF DECEMBER 31, 1985

<u>FACILITIES</u>	<u>NUMBER OF CONTROLLERS</u>			<u>NUMBER OF FIRST LINE SUPERVISORS</u>		
	<u>On-Board</u>	<u>Eligible</u>	<u>Percent</u>	<u>On-Board</u>	<u>Eligible</u>	<u>Percent</u>
Kennedy	18	0	-	5	1	20
LaGuardia	16	0	-	5	0	-
Newark	21	0	-	7	5	71
New York Center	165	17	10	44	26	59
New York TRACON	88	4	5	26	9	35
Teterboro	13	0	-	2	0	-

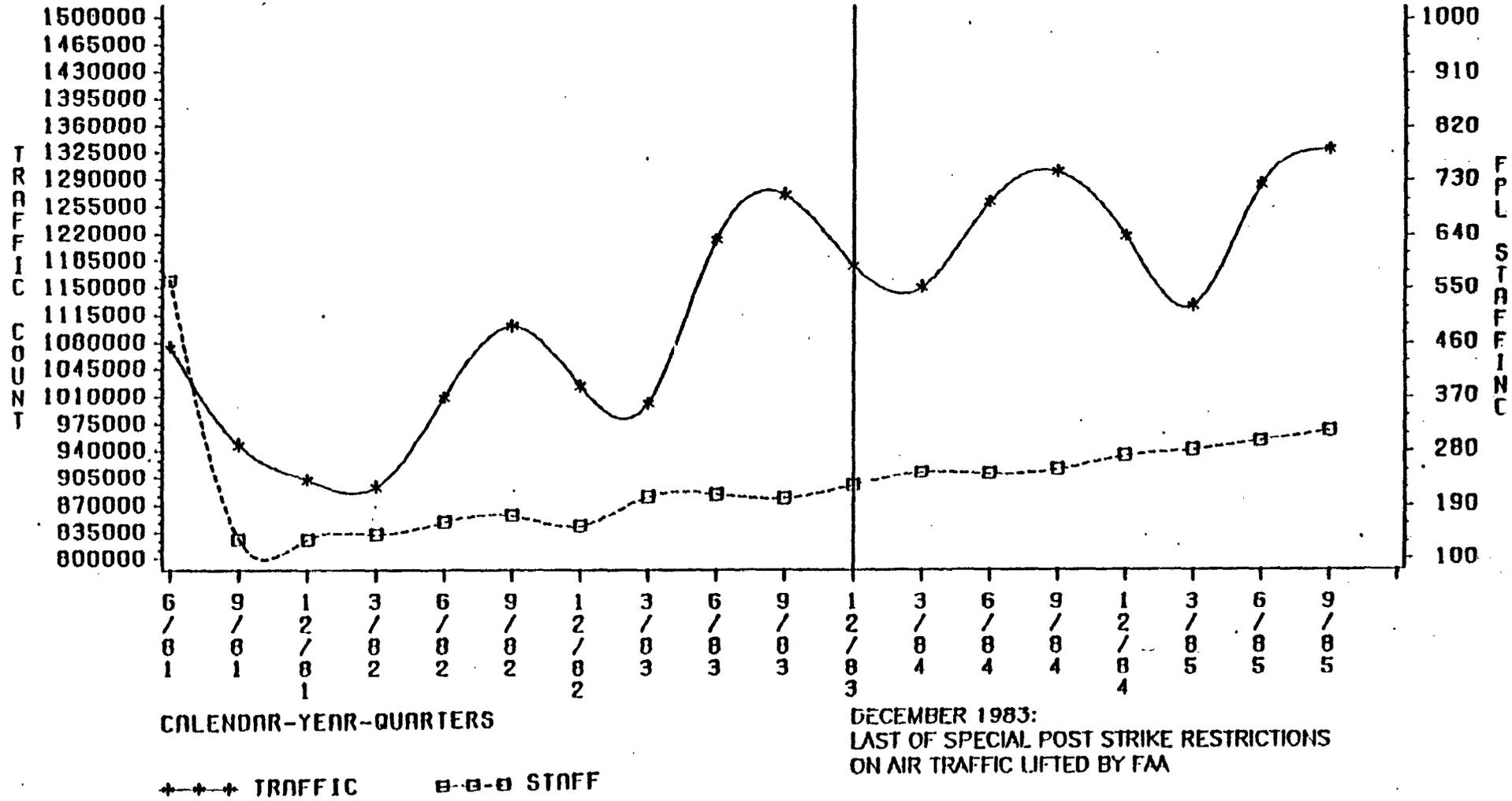
GROWTH IN AIR TRAFFIC ACTIVITY

Comparison of First and Second
Quarters in 1981 to Same Period in 1985

	<u>Percent Increase (Decrease)</u>
New York Center	14.1
<u>Terminal Facilities</u>	
Newark	54.3
New York TRACON	32.5
Kennedy	6.0
LaGuardia	4.3
Teterboro	(11.3)

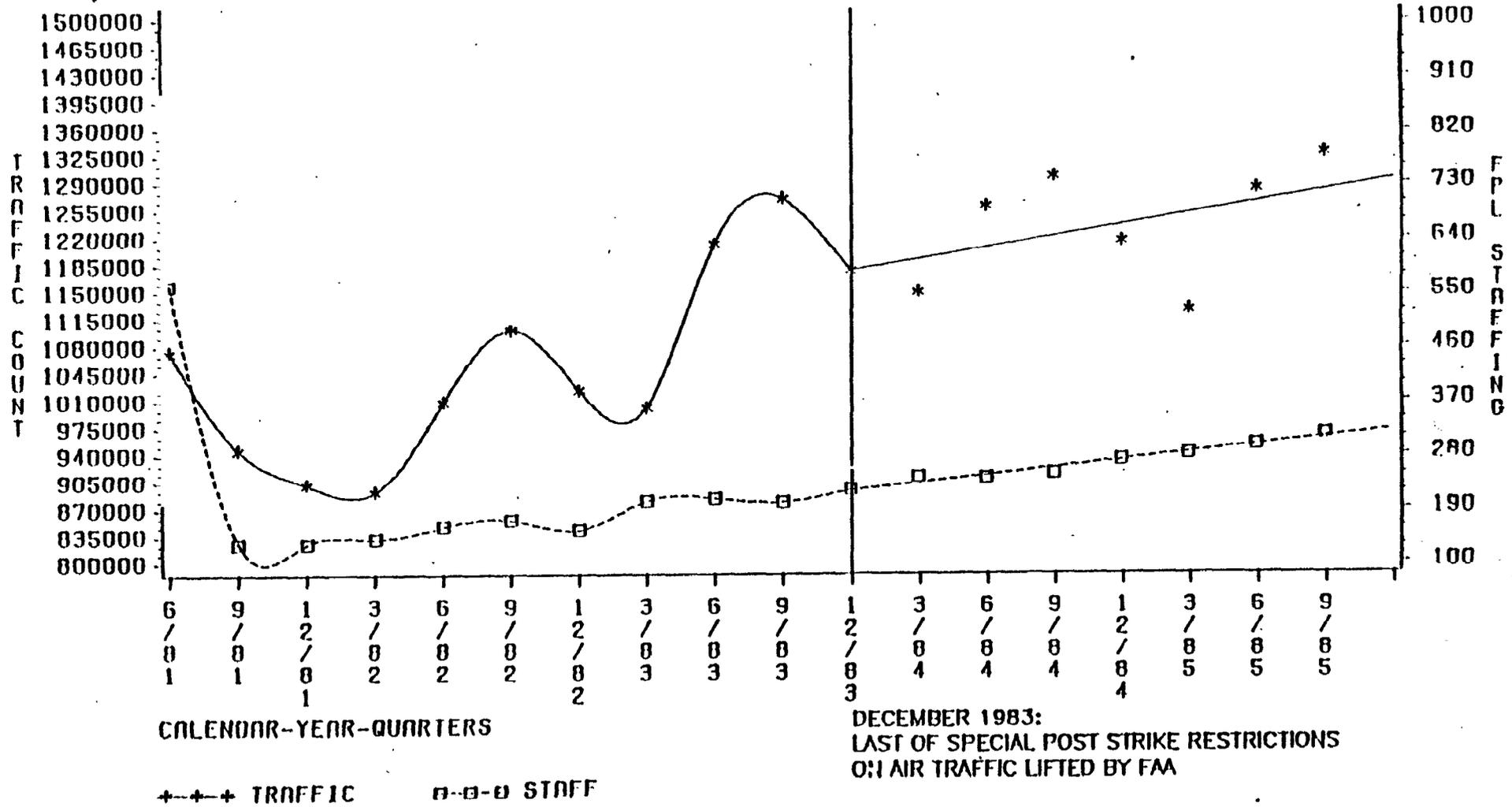
**FULL PERFORMANCE LEVEL CONTROLLER STAFFING
AND AIR TRAFFIC ACTIVITY AT SIX
NEW YORK AREA FACILITIES**

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FULL PERFORMANCE LEVEL CONTROLLER STAFFING
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